

EXPEDITED PROCEDURE
Examining Group Number 1700

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: LeRoy A Kuta et al.

Examiner: Mark A. Osele

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Serial No.: 09/883,144

Group Art Unit: 1734

Filed: June 15, 2001

Docket: 56731US002 (M120.137.101)

Due Date: November 15, 2003

Title: METHOD AND APPARATUS FOR AUTOMATICALLY APPLYING A
FLYING SPLICING TAPE TO A ROLL OF SHEET MATERIAL

RESPONSE UNDER 37 C.F.R. 1.116

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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir/Madam:

This is responsive to the final Office Action mailed August 15, 2003 and an Examiner Interview held October 16, 2003. In the final Office Action, the Examiner rejected claims 1, 2, 5-8, 10-12, 17-20, 22-24, 27-28, 33-37, and 40-43 under 35 U.S.C. §103(a) as being unpatentable over Kishi et al., European Patent Publication 349350 ("Kishi") in view of Weinberg et al., U.S. Patent No. 6,916,651 ("Weinberg"). Claims 9, 13, 16, 29-32, and 38, and 39 under 35 U.S.C. §103(a) as being unpatentable over Kishi in view of Weinberg as applied to claims 1 and 18 above, and further in view of Koza et al., U.S. Patent No. 5,431,767 ("Koza"). Claims 25 and 26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kishi in view of Weinberg as applied to claims 1 and 18 above, and further in view of McCormick et al., U.S. Patent No. 5,524,844 ("McCormick"). Finally, the Examiner's indication that claims 3-4 and 21 would be allowable if re-written in independent form is noted with appreciation. As discussed during the October 16, 2003 Interview and described below, it is respectfully submitted that all pending claims are allowable over the cited references. As such, no claim amendments are presented.

Interview Summary

The undersigned and Dan McIntyre thank the Examiner for the courtesies extended during the telephonic interview of October 16, 2003. During that interview, Kishi was discussed

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in detail in conjunction with independent claims 1, 18, and 42. To this end, Applicant's representatives argued that Kishi does not support the teachings advanced by the Examiner, and that several of the independent claim limitations are not taught or suggested by Kishi. Applicant's representatives explained several figures of the pending application. It was agreed that Applicant would submit a detailed discussion of the Kishi reference in response to the Final Office Action. The Examiner stated that if the Kishi reference does not meet the independent claim limitations, he would reconsider other prior art to determine whether the claims as drafted are allowable.

35 U.S.C. §103 Rejections

The Examiner relied upon Kishi as the primary reference in rejecting independent claims 1, 18, and 42. In particular, the Examiner asserts that Kishi "shows a method and apparatus for applying a splicing tape". For the reasons provided below, it is respectfully submitted that Kishi does not show a method and apparatus for applying a tape, and that the language of Kishi cited by the Examiner is unrelated to "applying a splicing tape" but instead relates to an apparatus that exchanges a depleting roll of web material with a "new" roll. Thus, the apparatus for exchanging the rolls, and its method of use, does not function to apply a splicing tape as apparently asserted by the Examiner.

In particular, FIGS. 1-10 of Kishi provides roll-exchanging mechanism. Kishi clearly states at column 5, lines 16-18, that FIG. 1 is an apparatus for exchanging web-like material. FIGS. 2-10 are described as showing enlarged views of various portions of the web exchanging apparatus of FIG. 1 (Kishi, column 5, lines 19-38). With this background in mind, the web exchanging apparatus of FIG. 1 is adapted to exchange a depleting roll or reel R₁ with a new reel or roll R₂. Identical feed systems are associated with each of the reels R₁, R₂, and include a peeling member 1, a paper-end gripping arm 2, a feed roller 3, a press plate 4, a guide mechanism 5, a paper keep mechanism 6, a cutter 7, and a cut-pieces removal mechanism 8 (Kishi, column 6, lines 51-53; column 9, lines 6-9). Thus, the web exchanging apparatus of FIGS. 1-10 does not include a taping device (as otherwise required by claim 18), nor could

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operation of the web exchanging apparatus of FIGS. 1-10 apply a splicing tape to either of the reels R₁, R₂ (as otherwise set forth in claims 1 and 42). To the contrary, the feed systems peel the outermost layer from a "new" reel (such as the layer r₂ of the reel R₂) via the peeling member 1. The paper-end gripping arm 2, feed roller 3, press plate 4, guide mechanism 5, and paper keep mechanisms 6 maneuver the outermost web or layer a significant distance from the roll R₂ to the cutter 7. The web r₂ is then cut to facilitate connection to the extended web r₂ of the second reel R₁. This web exchange apparatus and methodology is described at column 6, line 23 – column 13, line 10. Once again, this description is completely void of any reference to applying a tape to the roll, as this is not an intended function of the apparatus of FIG. 1, nor is a tape applicator provided.

In light of the above, it is respectfully submitted that the Examiner's assertion that Kishi "shows a method and apparatus for applying a splicing tape by sensing a leading edge of a web (column 10, line 32 to column 11, line 14)" is incorrect (Final Office Action (or "FOA"), page 2, ¶ 2). The language appearing at column 10, line 32 – column 11, line 14 relates specifically to the apparatus of FIG. 1, that as previously described, does not and cannot apply tape. Similarly, the Examiner's reference to column 2, lines 24-30 (FOA, page 2, ¶ 2) is also unrelated to applying tape; instead, this language is taken from a paragraph that only describes transporting a material web from a wound reel. The Examiner's reference to column 11, lines 35-54 (FOA, page 2, ¶ 2) is unrelated to applying tape to a wound roll or otherwise adhering a leading edge of cut outermost layer to a holding tape. Instead, this language describes cutting the trailing end of a depleting roll and then connecting this cut end to the web of a separate, "new" roll along the delivery path A. Finally, although the Examiner has not cited specific passages of Kishi that might otherwise teach "lifting a portion of the outermost layer of the roll" and "applying tension to the layer" (FOA, page 2, ¶ 2), it is respectfully submitted that the only reference by Kishi to such steps is in connection with the web exchanging apparatus of FIG. 1 and as such, are unrelated to a method or apparatus for applying a splicing tape to a wound roll.

The Examiner correctly notes that FIGS. 11 and 12 of Kishi illustrate a reel or roll of material, the outermost layer of which is temporarily adhered to the roll by adhesive tape.

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However, the apparatus of FIG. 1 cannot be used to form the roll in this manner. Instead, the roll of FIGS. 11 and 12 is separately provided and subsequently used by the apparatus of FIG. 1. Because the web exchanging apparatus of FIG. 1 does not include a tape applicator or a hole punch (otherwise required to form the hole 11b), the web exchanging apparatus of FIG. 1 of Kishi cannot be used to form the roll of FIGS. 11 and 12. Thus, the only possible conclusion is that the roll arrangement of FIGS. 11 and 12 of Kishi stands on its own, and any discussion relating to the web exchanging apparatus of FIG. 1 cannot be attributed to the roll of FIG. 11.

Kishi provides a general description of how the roll of FIGS. 11 and 12 is formed, including punching or boring a hole 11b adjacent a leading end 11a (Kishi, column 13, lines 27-42). The roll is then completely wound and an adhesive tape 12 placed over the outer surface of the wound roll in an area of the hole 11b (Kishi, column 13, lines 43-56). Kishi makes no reference to placing the tape 12 so as to encompass the leading end 11a, let alone along a defined application line generated with reference to cutting of the leading end 11a as otherwise required by claim 1. In fact, Kishi has no interest in understanding where the leading end 11a contacts a remainder of the wound roll; instead, Kishi is specifically concerned with positioning the tape over the hole 11b that is otherwise offset from the leading end 11a. In fact, Kishi specifically states that a position of the paste (e.g., the tape 12) does not have to be accurately located when the roll is subsequently processed by the apparatus of FIG. 1 (Kishi, column 14, lines 54-60). Further, Kishi makes no reference to the tape 12 being applied by a tape dispenser or in any other automated fashion. Pointedly, and with reference to FIG. 2, Kishi teaches away from securement of the leading end 11a to the wound roll as to do so would interfere with desired interaction with the peeling member 1 that otherwise lifts the leading end away from the roll.

In light of the above, claim 1 is allowable over Kishi in view of Weinberg. Kishi does not teach or suggest a method of automatically applying a splicing tape. In particular, the web exchanging apparatus of FIG. 1 does not include a tape applicator and thus cannot apply a splicing tape. Further, even if Kishi were somehow modified to provide a tape applicator adjacent the roll R₁ or R₂, Kishi does not recognize, let alone teach or suggest, knowing or correlating a location of the cutter 7 relative to a circumference of the wound roll R₁ or R₂, or

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radially aligning the cut leading edge with a defined application line on the wound portion as set forth in claim 1. That is to say, the cutter 7 is located a relatively significant distance away from the ever changing circumference of the wound roll R_1 or R_2 such that any cut made by the cutter 7 could not be correlated with an exact circumferential location along the wound roll that the cut leading end would otherwise contact if the roll were re-wound. Finally, and as previously described, Kishi teaches away from applying splicing tape between the wound roll and the leading end. For at least these reasons, then, it is respectfully submitted that claim 1 of the present invention recites allowable subject matter.

Independent claim 18 relates to an apparatus for applying a splicing tape and includes a sheet engagement mechanism, a sheet cutter, and a taping device. As previously described, the web exchanging apparatus of FIG. 1 of Kishi does not include a taping device. Further, even if Kishi were somehow modified to include a taping device, Kishi does not recognize, let alone teach or suggest, connecting the sheet engagement mechanism, the sheet cutter, and the taping device at known spatial locations as otherwise set forth in independent claim 18. For at least these reasons, then, it is respectfully submitted that claim 18 is allowable over the cited references.

Claim 42 relates to a method of automatically applying a splicing tape and includes establishing an imaginary application line, cutting an outermost layer to form a leading edge that is radially alignable with the imaginary application line and applying the splicing tape to a wound portion of the roll along the application line. For example, page 18, line 14 – page 19, line 2 describe an “imaginary” application line as a location on a wound roll where a leading edge of a lifted outermost layer would contact if re-wound to the roll. Because the leading edge is not actually in contact with the roll, the actual application line cannot physically be seen, thus an “imaginary” application is established. As previously described, operation of the web exchanging apparatus of FIG. 1 of Kishi does not entail applying tape. Further, Kishi does not recognize, let alone teach or suggest, establishing an imaginary application line or cutting a lifted outermost layer at a specific spatial location such that the leading edge is radially alignable with the established imaginary application line. At best, Kishi cuts the outermost layer via the cutter

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7; however, it is not until after the roll or reel is re-wound that an "application line" would be known. This is in direct contrast to claim 42, whereby the application line is established as an imaginary line determined apart from actual cutting and re-winding. As such, it is respectfully submitted that claim 42 recites allowable subject matter.

In light of the above, it is respectfully submitted that independent claims 1, 18, and 42, as well all claims depending therefrom, are in a condition for allowance. Notice to that effect is respectfully requested.

CONCLUSION

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 500471.

The Examiner is invited to contact the Applicant's Representative at the below-listed telephone number if there are any questions regarding this response.

Respectfully submitted,

LeRoy A. Kuta et al.,

By their attorneys,

DICKE, BILLIG & CZAJA, PLLC

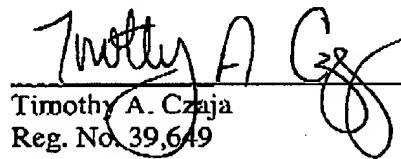
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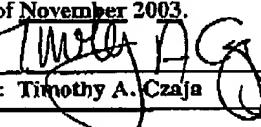
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The undersigned hereby certifies that this paper or papers, as described herein, are being transmitted via telefacsimile to (703) 872-9306, Examiner Mark A. Osole on this 13th day of November 2003.

By 
Name: Timothy A. Czaja